

XIX. *Descriptions of new species of Scoliidæ in the collection of the British Museum, with occasional reference to species already known.* By W. F. KIRBY, F.E.S., Assistant in the Zoological Department, British Museum.

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PLATE XV.

IN rearranging the collection of *Scoliidæ* in the British Museum I have met with several interesting new species, which I describe in the present paper. The *Scoliidæ* are an interesting group, and, as a rule, not specially difficult, and it is singular that almost nothing has been done in this family since the catalogue (or more properly, monograph) published by Saussure and Sichel in 1864. Their genera are very easily recognisable, and therefore I have retained them provisionally, although they are founded too exclusively on neuration, and therefore sometimes separate closely-allied species, and in some few cases would lead to sexes or varieties of one species being placed in different genera.

The present paper relates only to the typical genera of *Scoliidæ* included in Saussure and Sichel's monograph, which, after fixing the types and weighing the claims of the various names to priority, should stand as follows:—

1. *Liacos*, Guér. (= *Triliacos*, S. & S.).
2. *Diliacos*, S. & S.
3. *Solia*, F. (= *Triscolia*, S. & S.).
4. *Discolia*, S. & S.
5. *Elis*, F. (= *Trielis*, S. & S.).
6. *Campsomeris*, St. Farg. (= *Colpa*, St. Farg., = *Dielis*, S. & S.).

I have not included the doubtful genera *Cosila* and *Epomidiopteron*, which hardly belong to the restricted family *Scoliidæ*, in the present paper; nor two genera, likewise of doubtful position, described since the monograph, viz. *Pseudoscolia*, Rad., and *Dyscolesthes*, Westw., which the Museum does not at present possess.

Genus I. LIACOS, *Guér.*

(No new species described.)

Genus II. DILIACOS, *Sauss. & Sichel.**Diliacos dubia*, Smith.*Scolia dubia*, Smith, Journ. Linn. Soc., Zool., vii., p. 28 (1863).

Smith describes a male from Ceram. The British Museum possesses three females, allied to *D. insularis*, Smith, which I regard (in the absence of the male) as probably belonging to *D. dubia*. One of them, from Ceram, was incorrectly labelled *fulgidipennis*; the other two are from the Solomon Islands.

Diliacos fulgidipennis, Smith.*Scolia fulgidipennis*, Smith, Journ. Linn. Soc., Zool., iii., p. 132 (1859).

This insect is referred by Saussure & Sichel (Cat. Scol., p. 109) to *Discolia*, and was placed in the section with yellow antennæ. Smith, however, expressly refers the species to *Diliacos*, and describes the flagellum as obscure rufo-fuscous. The species is represented in the British Museum by a male and female, of which the female agrees best with Smith's description, and may provisionally stand as representing his species, although the antennæ are dark brown or black. The wings are brilliant coppery green. The male, on the other hand, agrees better with a female from New Guinea (unnamed in the collection), though Smith says the sexes scarcely differ. The punctuation is, however, so different that I have decided to regard it as a distinct species.

Diliacos eximius, n. s. (Pl. XV., fig. 1).

Long. corp. 27 mm.; exp. alar. 46 mm.

♂. Black, clothed with hair, most thickly on the prothorax, the sides of the metathorax and abdomen, and on the legs; clypeus densely and closely punctured in rows on the sides, nearly smooth on the median carina; thorax and abdomen covered with very fine crowded punctures, thorax black, mesothorax slightly shining, abdomen slightly iridescent, front legs with the curious clavate tibial spur, and the tufts on the inside of the tarsi rufous; wings

rather long, narrow, and pointed, greenish blue, with the cells violet, and the hind margins narrowly brown; in some lights the wings appear much more strongly shining with blue and magenta, especially on the under surface; the outer fork of the recurrent nervure, which is marked with a large bulla in *D. fulgidipennis* is entire.

Hab. Aru.

Diliacos dorycus, n. s.

Exp. al. 50 mm.

♀. Closely resembles *D. eximius*. Clypeus hardly punctured; body more shining and much less hairy than in *D. eximius*; mesothorax smooth in the middle, the edges finely punctured; abdomen sparingly punctured; wings deep blue, with but little greenish mixture, but strongly violet, shading into magenta, at the base and over almost the whole surface beneath.

Hab. Dorey.

Genus III. *SCOLIA*, *Fabr.*

Scolia Halima, n. s.

Long. corp. 23 mm.; exp. al. 40 mm.

♀. Black, extremely thickly punctured, the middle of the clypeus, of the vertex, of the thorax, and of segments 2—4 of the abdomen, nearly smooth; the sides of the body, the terminal segments of the abdomen, and the legs thickly clothed with long black hair; abdomen beneath almost impunctate in the middle of the segments; wings hyaline with greenish nervures, edged with violet; a broad costal band on the fore wings, shining with purple and violet, covering the upper portion of the principal cells, and continued to the tip; on the inner margin of the fore wings and on the costa of the hind wings runs a stripe of the same colour for about two-thirds of the length of the wings.

Hab. Natal.

This species has a superficial resemblance to *Liacos nigrita*, *Fabr.*, but apart from the difference in the neururation, the latter species is much smaller and paler, with the dark colouring hardly reaching the tip of the fore wings, and the punctuation is much less dense, especially on the mesothorax and on the first segment of the abdomen. In *S. Halima*, too, there is a deep and very strongly punctured concavity between the antennal ridge and the frontal ocellus.

Scolia Alecto, Smith.

Scolia Alecto, Smith, Proc. Linn. Soc., Zool., iii., p. 10 (1858).

There is a male from Macassar, and a female from Makian, in the British Museum. There is no doubt that they belong to the same species, but the male is a true *Scolia* (i.e., *Triscolia*), while the female is a *Discolia*, thus proving that the two genera cannot be separated by neurulation alone.

Scolia unimaculata, n. s.

Long. corp. 28 mm.; exp. al. 45 mm.

♀. Black, clothed with black hair on the sides; face thickly punctured, a very strong frontal ridge, rising from the inside of the emargination of the eyes, and running below the ocelli; the space between this and the antennæ is marked with very large and deep punctures, but the vertex is nearly smooth, and the occiput shows only a few small punctures. Thorax thickly punctured; the hinder half of the mesothorax smooth, except at the edges, and there are smaller bare spaces. Abdomen shining black, with violet reflections in a good light, the first three segments sparingly punctured (except a line at the base of the second segment), and the remainder very strongly. Under surface with the punctures more distinct, especially those towards the base; the first segment, and the middle of the second towards the extremity, smooth; the base of the third with very minute and crowded but distinct punctures. Wings strongly suffused with violet; the rounded cell at the base of the recurrent nervure (Burmeister's cell 5) yellowish subhyaline.

Hab. India.

Allied, not very closely, to *S. Alecto*, Smith.

A specimen from Java differs in the darker purple rather than violet colour of the wings, and in the much more intense violet lustre of the abdomen. Until more specimens are obtained it would be premature to regard it as more than a variety.

Scolia tyrianthina, n. s. (Pl. XV., fig. 2).

Long. corp. 20 mm.; exp. al. 33 mm.

♀. Black, hair short, face strongly punctured, vertex smooth, no frontal ridge; thorax with very large punctures; small bare spaces in the middle of the mesothorax and on the inside of the lateral lobes of the metathorax; abdomen black, with violet

reflections; the basal half of the first segment coarsely punctured, and that of the second and third segments finely; the remainder coarsely. Abdomen beneath thickly punctured, the basal half of the third and fourth segments very finely. Wings of a deep uniform violet-blue.

Hab. Andaman Islands.

Allied to *S. undata*, Smith, but larger and differently punctured.

Scolia læviceps, n. s.

Long. corp. 23—26 mm.; exp. al. 23—24 mm.

♀. Black, the sides moderately hairy; head smooth and shining, with a few small scattered punctures; the prothorax, except at the front of the lobes, and the mesothorax, except in front, where it is thickly punctured, almost impunctate; scutellum and post-scutellum with large punctures, chiefly on the sides; metathorax and first segment of abdomen very thickly punctured, the remaining segments of the abdomen less thickly, and with smooth spaces in the middle, especially on the second and third; under surface of abdomen rather sparingly punctured, the middle of the first and last segments smooth; the base of the second and third smooth, or with nearly microscopic punctures; wings violet, with greenish reflections.

Hab. Australia.

Two females from Swan River and Western Australia. Not nearly allied to any other species before me.

Genus IV. DISCOLIA, *S. & S.*

Discolia Chryseis, n. s. (Pl. XV., fig. 3).

Long. corp. 13—18 mm.; exp. al. 26—35 mm.

Black; abdomen blue-black, slightly shining, closely and uniformly punctured; head of female smoother, and with fewer and smaller punctures than that of the male; antennæ thick and obtuse, differing little in the sexes except in the number of joints; jaws inclining to pitchy, tibial claw of front legs reddish; hair and spines black; wings coppery green, inclining towards fiery on the outer half of the fore wings in the female.

Hab. Sierra Leone.

Resembles *D. affinis*, Guér., but differs from this and several allied species by its black antennæ.

Discolia fasciatipennis, Smith.

Scolia fasciatipennis, Smith, Cat. Hym. Ins. B. M., iii., p. 103, n. 89 (1855).

Elis fasciatipennis, Sauss. & Sich., Cat. Scol., p. 169 (1864).

Scolia alaris, Sauss., Ann. Soc. Ent. France, (3), vi. p. 203 (1858); Sauss. & Sich., Cat. Scol. pp. 97, 282 (1864).

This species was referred by Saussure and Sichel to *Elis*, owing to its having been inadvertently included in a wrong section of *Scolia* by Smith.

Apart from the neuriation, it cannot be confounded with *Liacos nigrita*, Fabr., in which the punctures are much smaller and less numerous, and the dark colouring of the wings is much paler, and almost confined to the neighbourhood of the costa and the base.

Discolia disparilis, n. s. (Pl. XV., fig. 7).

Long. corp. 21—26 mm.; exp. al. 36—48 mm.

Black, hairy, thickly punctured, the convex space between the antennal ridge and the frontal ocellus, and the middle of the thorax, and of the second and third segments of the abdomen, smooth and shining, and sparingly punctured; its under surface but slightly punctured in the female. Wings clouded hyaline; the whole of the cells, and a broad band on the costa of the fore wings, ceasing before the tip, violet.

Hab. Natal; Angola.

There are two females and a male from Natal in the Collection, and a male from Angola. The male from Natal differs somewhat, and may belong to another species. It is much smaller (long. corp. 16 mm.; exp. al. 30 mm.), and resembles *D. fasciatipennis*, Smith, in size. The abdomen is more blue-black, and more densely punctured beneath. There are probably several allied species, similarly coloured. The present species has a superficial resemblance to *Scolia Halima*, just as *Discolia fasciatipennis* has to *Liacos nigrita*, Fabr. This insect stood in the Collection as *S. alaris*, Sauss.; but the latter species is certainly synonymous with *S. fasciatipennis*, Smith.

Discolia vittifrons, Sich. (?).

(?) *Scolia vittifrons*, Sich., Cat. Scol., p. 285 (1864).

Sichel describes this species from Siam. There are three specimens which agree with the description in the British Museum; two females from North China and Japan, and a male from North China. The pair from North China expand from 33 to 38 mm. In the male the abdomen is more iridescent than in the females, and the yellow spots on the third segment are placed in front; in the female the head is entirely black, and the yellow spots stand in the middle of the segment. The female from Japan is considerably larger (expands 43 mm.), and has an orange band between the eyes above the antennæ, like the male from China. Until more specimens are obtained I prefer to refer these three provisionally to *D. vittifrons*.

Discolia punctatissima, n. s.

Long. corp. 15 mm.; exp. al. 30 mm.

♀. Black, sparingly clothed with short black hairs, and very thickly and uniformly punctured, only a small space at the base of each of the lateral lobes of the metathorax being smooth; abdomen with a slight greenish iridescence. Wings dull greenish brown in the shade, with black or greenish nervures, but as they are turned to the light, gradually changing, at first along the nervures, and then over the whole surface to the most brilliant violet.

Hab. Solomon Islands.

Allied to *D. laviceps*, Smith, from Hong Kong. It is also allied to a specimen from Borneo, in too poor condition for positive determination, but which is possibly identical with *D. nitidula*, Sauss., a Javanese species. It also much resembles *D. soror*, Smith, from Australia, in which, however, the lateral lobes of the metathorax are punctured to the base.

Discolia Hecate, n. s. (Pl. XV., fig. 4).

Long. corp. 23—41 mm.; exp. al. 44—64 mm.

♂. Black, sides and legs with black hair; shoulders, scutellum, and post-scutellum pale yellow; mesothorax with large punctures, and a groove on each side running forwards from near the corners of the scutellum; mesothorax and first segment of the abdomen

thickly punctured, the rest more sparingly; segments 2—4 greenish, 2 and 3 with a large yellow spot on each side, and segment 4 with a small one on each side; wings deep violet-purple.

♀. Black, smooth and shining, sparingly punctured, except on the prothorax, front of mesothorax, metathorax, and the hinder portions of the segments of the abdomen; post-scutellum with a short transverse yellow streak, thick in the middle and narrow at the ends, and segments 2 and 3 with a large yellow spot on each side. In one specimen there is also a yellow dot on the sides of the prothorax, and a small perpendicular yellow dash on the scutellum. Wings deep violet.

Hab. Trinidad.

Allied to *D. guttata*, Burm., but in that species (apart from colour differences) the male is more hairy, and the female is much less thickly punctured towards the extremity of the abdominal segments. The supposed variety of the male of *D. guttata*, mentioned by Saussure and Sichel (Cat. Scol., p. 131), probably belongs to this species.

Genus V. *ELIS*, *Fabr.*

Elis lugens, n. s. (Pl. XV., fig. 8).

Long. corp. 29 mm.; exp. al. 50 mm.

♂. Dull black, the sides and legs hairy; antennæ rather stout; middle of the clypeus smooth, surrounded with large punctures; thorax closely and evenly punctured, with a very small oval longitudinal smooth spot in the middle of the mesothorax; abdomen with a very slight greenish iridescence, very finely and evenly punctured, the first segment with rather larger punctures; wings very long, narrow, and pointed, smoky yellowish hyaline, with pitchy-black nervures, the middle of the wings rather lighter; the third cubital cell very large and almost square.

Hab. Rio Grande do Sul.

Very distinct from any previously-described species, and may ultimately form a new genus.

Elis Rudaba, n. s.

Long. corp. 14 mm.; exp. al. 24 mm.

♂. Black and yellow, clothed with grey hair. Face very hairy, antennæ and mandibles ferruginous-brown, sides of labrum yellow. Thorax black; the prothorax, a stripe on the pleura, at first straight, and then narrowed and curved backwards, the

scutellum, post-scutellum, and the middle of the metathorax above, yellow. Abdomen with the segments black in front and yellow behind; the first segment is entirely black beneath, and is bordered behind with black above for most of its width. The yellow portion of the first three or four segments has a concave excavation in the middle, and is again indented with black on the sides; beneath the black extends squarely at the sides, but with a curve in the middle, into the yellow; towards the extremity the black and yellow bands are more even, though the yellow still projects beyond the black on the sides. Legs black, with grey hair; femora and tibiæ yellow above, and the former likewise on the sides. Wings hyaline, the nervures rusty yellow. Punctuation apparently fine and even, but much concealed by the pubescence.

Hab. Chaman.

Allied to *E. garrula*, Erichs., from which it differs in the colour of the head and wings.

Genus VI. CAMPSOMERIS, *St. Farg.*

Campsomeris tomentosa, n. s.

Long. corp. 18 mm.; exp. al. 30 mm.

♀. Black; head and thorax clothed above with gilded pubescence, more silvery on the pleura; jaws, antennæ, and legs ferruginous, the hair on the legs mostly grey; abdomen with the first segment clothed, and the others fringed, with grey hair (nearly white beneath); the first segment with an irregular tawny spot on each side above; the second tawny above, with a black stripe curving backwards from each side, in front of its extremities, being a disconnected black stripe across the middle; third segment bordered behind with a tawny stripe, a little curved forwards at the ends; wings of a slightly yellowish hyaline, with tawny nervures.

Hab. Sierra Leone.

Allied to *C. crinita*, Sauss.

Campsomeris princeps, n. s.

Long. corp. 30 mm.; exp. al. 45 mm.

♀. Black; vertex, occiput, and thorax clothed with golden hair; head and abdomen at base nearly smooth; a patch of white hairs beneath each antenna; thorax with large punctures, but with a bare V-shaped space in the middle of the mesothorax; abdomen with the basal segment clothed with golden hairs, the

second more slightly; the second, third, and fourth fringed behind with ferruginous hairs, and the third, fourth, and fifth fringed before with yellow hairs; the sixth fringed in front with golden hairs; the terminal segment bare, densely striate-punctate; legs clothed with bristly yellow hair, shading into pale red towards the tarsi; wings hyaline, with brown nervures, a little smoky towards the costa.

Hab. Delagoa Bay.

Allied to *C. undulata*, Smith. One of the largest of the African species.

Campsomeris regalis, Sauss. & Sich.

Elis regalis, Sauss. & Sich., Cat. Scol., pp. 190, 298 (1864).

There is a specimen labelled "East Indies" in the Museum, from F. Smith's collection, which agrees with the description of this species, but is not much more than half the size of the typical specimens.

Campsomeris ceylonica, n. s.

Long. corp. 9—17 mm.; exp. al. 22—26 mm.

♂. Head and thorax black above; face yellow below the black antennæ, with a blackish spot in the raised middle of the clypeus; head and thorax mostly clothed with fulvous hairs above; the pleura and more or less of the middle of the thorax above with pale greenish golden hairs; legs red; abdomen with a violet-purple iridescence, the first four segments with a tawny band behind, these segments edged behind, and the remainder clothed with fulvous hair. Wings yellowish, with yellow veins, the costa and tip dusky.

♀. Head black or ferruginous; antennæ and mandibles ferruginous; head and thorax clothed with fulvous hair, except the metathorax, which is clothed with pale golden hair, especially on the sides; legs red, coxæ and femora often darker; abdomen black above and rufous below; the base of the first segment and the extremities of all the segments bordered with fulvous hair, which is almost continuous on the hinder segments; on the first three segments this is preceded by a yellowish tawny stripe, that on the second segment with a large projection in the middle. Wings yellowish hyaline, more yellow in the cells on the costa, and with a nearly square brown subapical patch.

Hab. Ceylon; a single specimen also from Bombay.

Allied to *C. Iris*, St. Farg., and *C. aurulenta*, Smith; the male differs from both in the first segment of the abdomen being hardly constricted, while in the female *C. Iris* is distinguished by having only four pale bands on the abdomen, and *C. aurulenta* by wanting the sub-apical patch.

Campsomeris Whitelyi, n. s. (Pl. XV., fig. 6).

Long. corp. 22 mm. ; exp. al. 41 mm.

♀. Black; antennæ inclining to pitchy; mandibles red. Head and thorax clothed with shaggy hair, which is yellowish grey in front and grey behind. Punctuation scanty, and almost confined to the neighbourhood of the ocelli, the front and sides of the mesothorax, the post-scutellum, and the metathorax. Abdomen with the first segment black, shining, clothed with shaggy grey hair; segments 2 and 3 velvety black in front and bright yellow behind, the yellow portion exhibiting a straight transverse dividing line before its extremity, and swelling out on each side in front; segment 4 with a yellow band before the extremity; segments 3—5 with a fringe of yellow hairs at the base; segment 6 reddish, especially at the extremity, and with a basal fringe of very dark red hairs; coarsely but not deeply punctured. Abdomen beneath shining black, with fringes of grey hairs at the base of the segments, and generally with two transverse rows of punctures running between them, the latter with long hairs springing from them towards the sides; the fringe at the base of the sixth segment is yellowish. Legs black, clothed with long grey hair; the tarsi and their spines, the terminal tibial spines, and the hollow beneath the femora are more or less reddish. Wings yellowish hyaline, with ferruginous nervures; costa dark rusty brown nearly to the middle, and then suffused with ferruginous as far as the cells extend.

Hab. Tambo Valley, Peru (*Whitely*).

Closely allied to *C. limosa*, Burm., from California and Mexico.

Campsomeris bivittata, n. s. (Pl. XV., fig. 5).

Long. corp. 17—21 mm. ; exp. al. 31—38 mm.

♂. Stout; black, with cinereous hair, everywhere closely punctured, with no smooth spaces even in the middle of the mesothorax or at the base of the metathorax; abdomen with segments 2 and 3 yellow above on the hinder two-thirds, the yellow bands being

more or less deeply indented in the middle; wings yellowish hyaline, nervures and costa tawny.

Hab. Rio Grande.

Unlike any species in the Collection, but probably allied to *C. obesa*, Staud.

EXPLANATION OF PLATE XV.

- FIG. 1. *Diliacos eximius*, ♂.
 2. *Scolia tyrianthina*, ♀.
 3. *Discolia Chryscis*, ♂.
 4. *D. Hecate*, ♀.
 5. *Campsomeris bivittata*, ♂.
 6. „ *Whitelyi*, ♀.
 7. *Discolia disparilis*, ♀.
 8. *Elis lugens*, ♂.